

In-Class Worksheet: NFAs and Basic Constructions

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1 NFAs

Try to write NFAs for the following languages

- $\{ w \mid w \text{ has at least three 1s} \}$
- $\{ w \mid w \text{ is matched by the regular expression } 10^*(1|0) \}$

2 Unions and Intersections

Write DFAs for the following two languages, then take both the union and intersection. When you're done, do the same thing with them as NFAs and take the union of the NFAs.

- $\{ w \mid w \text{ starts with 3 0s} \}$ DFA: NFA:
- $\{ w \mid w \text{ ends with 3 1s} \}$ DFA: NFA: